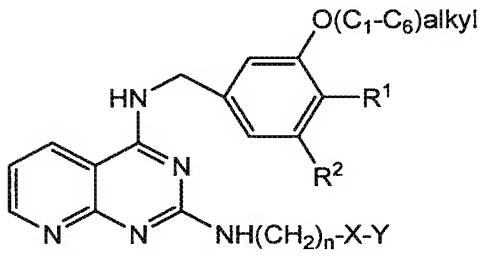
AMENDMENTS TO THE CLAIMS

1. (currently amended) A compound of formula (I)



(I) ;

or a prodrug thereof, or a pharmaceutically acceptable salt of said compound or prodrug ~~the prodrugs thereof, and the pharmaceutically acceptable salts of said compounds or prodrugs~~, wherein:

R^1 and R^2 are each independently hydrogen or methoxy, provided R^1 and R^2 are not both hydrogen or both methoxy;

n is 1, 2, 3, or 4;

~~X is a bond; O; S; C=O; N(R) , wherein R is hydrogen or (C1- C3)alkyl; C(OH) ; or -SO2; and~~

~~Y is benzoxazolyl; benzothiazolyl; benzofurazanyl; benzofuranyl; benzothiadiazolyl; benzisoxazolyl; benzisothiazolyl; benzimidazolyl; pyridyl; isatinyl; oxindolyl; indazolyl; indolyl; phenyl; thienyl; or furanyl; wherein Y is optionally substituted independently with from one to three halogen; trifluoromethyl; methoxy; C(=O)CH3; cyano; C(CH3)2OH; -CH(CH3)OH; -CH(CF3)OH; -C(C=O)CF3; -SO2NH2; -C(=O)OCH3; -CH2COOH;~~  ~~; thiazolyl; or oxadiazolyl~~

X is a bond, O, S, C=O, -N(R)-, wherein R is hydrogen or -(C_1- C_3)alkyl, -C(OH)- or -SO_2; and

Y is benzoxazolyl, benzothiazolyl, benzofurazanyl, benzofuranyl, benzothiadiazolyl, benzisoxazolyl, benzisothiazolyl, benzimidazolyl, pyridyl, isatinyl, oxindolyl, indazolyl, indolyl, phenyl, thienyl or furanyl; wherein Y is optionally substituted independently with from one to three halogen, trifluoromethyl, methoxy, -C(=O)CH_3, cyano, -$C(CH_3)_2$OH, -CH(CH_3)OH, -CH(CF_3)OH, -C(C=O)CF_3, -SO_2NH_2, -C(=O)OCH_3, -CH_2COOH,  , thiazolyl or oxadiazolyl.

2. (currently amended) ~~A~~ The compound of claim 1, wherein ~~X is a bond, and Y is benzofurazanyl; thienyl; pyridyl; or phenyl, wherein phenyl is optionally substituted independently with one or two halogen; trifluoromethyl; methoxy; $-C(=O)CH_3$; cyano; $-C(CH_3)_2OH$; $-CH(CH_3)OH$; $-CH(CF_3)OH$; $-C(C=O)CF_3$; $-SO_2NH_2$; $-C(=O)OCH_3$; $-CH_2COOH$; thiazolyl; or oxadiazolyl;~~

X is a bond; and Y is benzofurazanyl, thienyl, pyridyl, or phenyl, wherein said phenyl is optionally substituted independently with one or two halogen, trifluoromethyl, methoxy, $-C(=O)CH_3$, cyano, $-C(CH_3)_2OH$, $-CH(CH_3)OH$, $-CH(CF_3)OH$, $-C(C=O)CF_3$, $-SO_2NH_2$, $-C(=O)OCH_3$, $-CH_2COOH$, thiazolyl or oxadiazolyl; or a pharmaceutically acceptable salt thereof.

3. (currently amended) ~~A~~ The compound of claim 1, wherein ~~X is a bond, n is 2 or 3, and Y is thienyl; pyridyl; or phenyl, wherein phenyl is optionally substituted independently with one or two methoxy; halogen; $C(CH_3)_2OH$; $CH(CF_3)OH$; or $C(C=O)CF_3$~~

X is a bond; n is 2 or 3; and Y is thienyl, pyridyl or phenyl, wherein said phenyl is optionally substituted independently with one or two methoxy, halogen, $-C(CH_3)_2OH$, $CH(CF_3)OH$ or $-C(C=O)CF_3$; or a pharmaceutically acceptable salt thereof.

4. (original) N^2,N^4-*bis*-(3,5-Dimethoxy-benzyl)-pyrido[2,3-d]pyrimidine-2,4-diamine;

N^4-(3,5-dimethoxy-benzyl)-N^2-(2-pyridin-4-yl-ethyl)-pyrido[2,3-d]pyrimidine-2,4-diamine;

N^4-(3,5-dimethoxy-benzyl)-N^2-(2-thiophen-2-yl-ethyl)-pyrido[2,3-d]pyrimidine-2,4-diamine;

N^4-(3,5-dimethoxy-benzyl)-N^2-2-phenethyl-pyrido[2,3-d]pyrimidine-2,4-diamine;

N^4-(3,5-dimethoxy-benzyl)-N^2-[2-(3,5-dimethoxy-phenyl)-ethyl]-pyrido[2,3-d]pyrimidine-2,4-diamine;

2-(3-{3-[4-(3,4-dimethoxy-benzylamino)-pyrido[2,3-d]pyrimidin-2-ylamino]-propyl}-phenyl)-propan-2-ol;

N^4-(3,4-dimethoxy-benzyl)-N^2-[2-(4-fluoro-phenyl)-ethyl]-pyrido[2,3-d]pyrimidine-2,4-diamine;

N^4-(3,4-dimethoxy-benzyl)-N^2-phenethyl-pyrido[2,3-d]pyrimidine-2,4-diamine; or

N^4-(3,4-dimethoxy-benzyl)-N^2-(3-phenyl-propyl)-pyrido[2,3-d]pyrimidine-2,4-diamine; a prodrug thereof, or a pharmaceutically acceptable salt of said compound or prodrug.

5. (currently amended) A pharmaceutical composition comprising a compound of formula (I) of claim 1, a prodrug thereof, or a pharmaceutically acceptable salt of said compound or prodrug, and a pharmaceutically acceptable vehicle, ~~carrier,~~ carrier or diluent.

6. (currently amended) A method of treating a PDE 2-mediated condition, ~~disease,~~ disease or symptom in a mammal in need of such treatment which method comprises administering to said mammal a therapeutically effective amount of a compound of formula (I) of claim 1, a prodrug thereof, or a pharmaceutically acceptable salt of said compound or prodrug; or a pharmaceutical composition comprising said compound of formula (I), said prodrug thereof, or a pharmaceutically acceptable salt of said compound or prodrug, and a pharmaceutically acceptable vehicle, ~~carrier,~~ carrier or diluent.

7. (currently amended) ~~A~~ The method of claim 6, wherein said condition, ~~disease,~~ disease or symptom is osteoporosis, pulmonary hypertension, female sexual arousal disorder, diminished memory or cognition, platelet aggregation, vascular angiogenesis, dementia, cancer, arrhythmia, thrombosis, ~~bone fracture and/or defect,~~ bone fracture, bone defect, bone fracture and bone defect, delayed or non-union fracture, spinal fusion, bone in-growth, cranial facial reconstruction ~~reconstruction,~~ or hypoxia ~~which method comprises administering to mammal in need of such treatment a therapeutically effective amount of a compound of formula (I) of claim 1, a prodrug thereof, or a pharmaceutically acceptable salt of said compound or prodrug; or a pharmaceutical composition comprising said compound, said prodrug thereof, or said pharmaceutically acceptable salt of said compound or prodrug~~.

8. (currently amended) ~~A~~ The method of claim 6, wherein said condition is bone fracture, bone defect, or bone fracture and bone defect ~~and/or defect~~.

9.-11. (canceled)

12. (currently amended) ~~A~~ The method of claim 6, further comprising administering to said mammal a therapeutically effective amount of an EP_2 selective receptor agonist; or a prodrug thereof, or a pharmaceutically acceptable salt of said EP_2 selective receptor agonist or prodrug ~~a pharmaceutical composition comprising a combination of said compound of formula (I) of claim 1 and said EP_2 selective receptor agonist~~.

13. (currently amended) ~~A~~ The method of claim 12, wherein ~~said PDE 2 inhibitor~~ the compound of formula (I) is N^4-(3,5-dimethoxy-benzyl)-N^2-(2-pyridin-4-yl-ethyl)-pyrido[2,3-d]pyrimidin-2,4-diamine; 2-(3-{3-[4-(3,4-dimethoxy-benzylamino)-pyrido[2,3-d]pyrimidin-2-ylamino]-propyl}-phenyl)-propan-2-ol; N^4-(3,4-dimethoxy-benzyl)-N^2-(3-phenyl-propyl)-pyrido[2,3-d]pyrimidine-2,4-diamine; a prodrug thereof, or a pharmaceutically acceptable salt of said compound or prodrug.

14. (currently amended) ~~A~~ The method of claim 12, wherein said EP_2 selective receptor agonist is (3-(((4-*tert*-butyl-benzyl)-(pyridine-3-sulfonyl)-amino)-methyl)-phenoxy)-acetic acid, a prodrug thereof, or a pharmaceutically acceptable salt of said compound or prodrug.

15. (canceled)

16. (currently amended) ~~A~~ The compound of claim 2, wherein ~~X is a bond, n is 2 or 3, and Y is thienyl; pyridyl; or phenyl, wherein phenyl is optionally substituted independently with one or two methoxy; halogen; $C(CH_3)_2OH$; $CH(CF_3)OH$; or $C(C=O)CF_3$;~~ n is 2 or 3; and Y is thienyl, pyridyl or phenyl, wherein said phenyl is optionally substituted independently with one or two methoxy, halogen, $-C(CH_3)_2OH$, $CH(CF_3)OH$ or $-C(C=O)CF_3$; or a pharmaceutically acceptable salt thereof.

17. (currently amended) A pharmaceutical composition comprising a compound of claim 4, a prodrug thereof, or a pharmaceutically acceptable salt of said compound or prodrug, and a pharmaceutically acceptable vehicle, ~~carrier,~~ carrier or diluent.

18. (currently amended) A method of treating a PDE 2-mediated condition, disease, or symptom in a mammal in need of such treatment which method comprises administering to said mammal a therapeutically effective amount of a compound claim 4, a prodrug thereof, or

a pharmaceutically acceptable salt of said compound or prodrug; or a pharmaceutical composition comprising said compound claim 4, said prodrug thereof, or a pharmaceutically acceptable salt of said compound or prodrug, and a pharmaceutically acceptable vehicle, ~~carrier,~~ carrier or diluent.

19. (canceled)

20. (currently amended) ~~A~~ The method of claim 13, wherein said EP_2 selective receptor agonist is (3-(((4-*tert*-butyl-benzyl)-(pyridine-3-sulfonyl)-amino)-methyl)-phenoxy)-acetic acid, a prodrug thereof, or a pharmaceutically acceptable salt of said compound or prodrug.

21. (new) N^4-(3,4-dimethoxy-benzyl)-N^2-(3-phenyl-propyl)-pyrido[2,3-d]pyrimidine-2,4-diamine; or a pharmaceutically acceptable salt thereof.